ATTACHMENT 15 – DELTA

Introduction/Summary

The Upper Santa Clara River (USCR) IRWMP Region receives State Water Project (SWP) water delivered through the Delta; actions within the Region contribute to the success of CALFED Bay-Delta Program objectives.

In the USCR IRWMP, the Stakeholders made "reduction in water demand" one of the regional objectives. In the IRWMP, Stakeholders sought a "ten percent overall reduction in projected urban water demand throughout the Region by 2030 through implementation of water conservation measures" (IRWMP, pg. 3-3). A reduction in water demand would reduce dependence on imported SWP water and contribute to the attainment of CALFED objectives, benefiting the Delta.

Since the IRWMP was adopted, Senate Bill 7 of Extended Session 7 (SB7x-7) has been enacted, mandating that urban water suppliers reduce statewide water demand (in gallons per capita per day) by 20 percent by 2020. The Department of Water Resources (DWR) is recommending that the Region receive the planning grant funds requested during Planning Grant Round 1, which will allow an opportunity for the region as a whole to tackle enhanced water use efficiency in the IRWMP Update. Additionally, the Proposal Projects CLWA-4 (Santa Clarita Valley Water Use Efficiency Strategic Plan Programs) and VWC-1 (Santa Clarita Valley Southern End Recycled Water Project), specifically address water supply management practices to reduce potable water demand within the Region.

The Upper Santa Clara River IRWMP Region, Imported Water, and Water Supply Reliability

Nearly 50 percent of the Region's water supply is imported water from the SWP. The imported water is delivered to Castaic Lake through SWP facilities, treated at one of CLWA's two treatment plants, and then delivered to the domestic water purveyors through transmission lines owned and operated by CLWA. CLWA, as the Region's water wholesaler, has been has been contracting with the State of California through DWR to acquire and distribute SWP water since 1980. CLWA's Water Supply Contract with DWR is for 95,200 acre-feet per year (AFY) of SWP Table A Amount (IRWMP pg. 2-49). The four local retail water purveyors; 1) CLWA Santa Clarita Water Division (SCWD) (a RMWG member), 2) Los Angeles County Waterworks District No. 36 (LACWWD36), 3) Newhall County Water District (NCWD) (a RMWG member), and 4) Valencia Water Company (VWC) (a RMWG member), deliver these water supplies to municipal and industrial (M&I) users within the Valley. Agricultural uses are serviced by local groundwater supplies. Together, the Purveyors provide water to about 68,000 service connections (2009 Santa Clarita Valley Water Report).

Consistent with other urban SWP contractors, SWP deliveries to CLWA have increased as its requests for SWP water have increased (IRWMP pg. 2-50). Table 15-1, adapted from the USCR IRWMP presents historical total SWP deliveries to CLWA's service area.

TABLE 15-1
HISTORICAL TOTAL SWP DELIVERIES TO PURVEYORS

Year	Deliveries (AF)	Year	Deliveries (AF)
1980	1,125	1999	27,282
1985	11,823	2000	32,579
1990	21,647	2001	35,369
1991	7,968	2002	41,768
1992	13,991	2003	44,419
1993	13,393	2004	47,205
1994	14,389	2005	38,034
1995	16,996	2006	40,646
1996	18,093	2007[a]	45,332
1997	22,148	2008	41,705
1998	20,254	2009	38,546

Source: Santa Clarita Valley Water Report, 2009
Notes: a) Historically these supplies were comprised of only SWP Table A Amount. Since 2007, CLWA's imported supplies now consist of a combination of SWP water and water acquired from the Buena Vista Water Storage District in Kern County.

In late 2007 a federal court decision required that DWR curtail pumping from the Delta to protect the endangered Delta Smelt. A similar court decision was rendered in 2009 involving endangered salmon. The results of these impacts on environmental resources in the Delta, when combined with recent socio-economic conditions and hydrology changes have already reduced imported SWP utilization in the Region from a high in 2004 of 47,205 acre-feet (AF) to approximately 38,546 AF in 2009 (see Table 15-1). Recently (December 14, 2010) the court overturned these rulings and has required new analysis of Delta pumping requirements; while the results are unknown at this time it is expected that some level of SWP pumping restrictions will continue into the future.

The SWP supply itself is highly variable and depends on hydrologic conditions in northern California, the amount of water in SWP storage reservoirs at the beginning of the year, regulatory and operational constraints, the total amount of water requested by the contractors, and climate change. Currently, the reliability of the Region's overall water supply is dependent upon the reliability of its groundwater, imported water, and recycled water supplies. Since SWP water deliveries are subject to reductions when dry conditions occur in Northern California, and/or are affected by environmental decisions, the IRWMP, as well as the 2010 UWMP, include water management strategies for enhancing local water supply reliability during such occurrences.

Natural catastrophes can also impact water supplies. If an earthquake were to occur, pipelines, canals, or pump stations conveying water across the Tehachapi Mountains might become inoperable, making SWP deliveries to CLWA and the other downstream contractors dependent on the supplies then available in the terminal reservoirs. Although pipelines that traverse fault lines are reinforced, damage can still occur depending on the magnitude of the earthquake. Therefore, water banking opportunities south of the Tehachapi Mountains have a high value to CLWA, and thus are given high value as water management strategies within the USCR IRWMP.

In addition to earthquakes, the SWP could experience other emergency outage scenarios. Past examples include slippage of aqueduct side panels into the California Aqueduct near Patterson in the mid-1990s, the Arroyo Pasajero flood event in 1995, and various subsidence repairs needed along the East Branch of the Aqueduct since the 1980s. Such events could impact some or all SWP contractors south of the Delta. Impacts to the delivery of SWP water to CLWA would require the purveyors to rely on local supplies, increased groundwater pumping, recycled water, conservation, and water available to CLWA from Pyramid and Castaic

Lakes during the time period the SWP was unavailable. *Thus combinations of water management strategies that reduce dependence on imported water and that maximize the reliability of other local resources are strongly sought within the IRWM framework.*

The following section identifies how the USCR IRWMP will continue to integrate multiple water management strategies in order to maximize the flexibility of Region's water resources.

USCR IRWMP Objectives

During development of the USCR IRWMP, stakeholder issues and concerns culminated into significant key themes.

Key Issue #1: ***Increasing water demand while imported water supplies become less reliable.***

Since reduction in water demand is a critical objective within USCR IRWMP Region, and prioritizing projects is predicated on the objectives within the IRWM Plan, all of the projects within the IRWMP, and this Grant Proposal have been selected to directly meet the IRWMP objectives below (IRWMP pg.3-1).

USCR IRWMP OBJECTIVES

IRWMP OBJECTIVE	MULTIPLE BENEFIT
Reduce Water Demand: Implement technological, legislative and behavioral changes that will reduce user demands for water.	These projects result in more efficient water use, ***less dependence on imported water supplies***, less energy usage for treatment and delivery of water, and reduced demand for new or expanded water supply infrastructure. Proposal Project CLWA-4 and VWC-1 are examples.
Improve Operational Efficiency*:* Maximize water system operational flexibility and efficiency, including energy efficiency.	These projects have benefits related to reduced maintenance costs and decreased system water loss. Proposal Project NCWD-1 is an example.
Increase Water Supply*:* Understand future regional demands and obtain necessary water supply sources.	These projects ***provide for increased use of local supplies rather than imported water.*** They can decrease peak flood flows and can provide opportunities for habitat improvement and restoration.
Improve Water Quality: Supply drinking water with appropriate quality; improve groundwater quality; and attain water quality standards.	These projects reduce the potential for human exposure to potentially harmful substances and improve the efficiency of both water and wastewater treatment processes. They also benefit agricultural water users and wildlife habitat. Proposal Project CLWA-2 and VWC-1 are examples.
Promote Resource Stewardship*:* Preserve and improve ecosystem health; improve flood management; and preserve and enhance water-dependent recreation.	These projects improve overall habitat quality, reduce flooding and prevent erosion. Arundo removal also increases water supply as this plant utilizes large quantities of surface and groundwater. Proposal Project SC-1/USFS-1 is an example.

While all of the objectives are meant to work in together in order to maximize their benefits; two of the objectives are more directly focused on water supply as a resource and demand as a management tool that impacts that supply: ***Reduce Water Demand*** and ***Increase Water Supply***.

The USCR IRWMP objective ***Reduce Water Demand*** will be implemented by technological, legislative and behavioral changes that will reduce user demands for water. This is important to the USCR IRWMP for a few key reasons:

1. Adequate planning for, and the procurement of reliable water supplies is a critical component of CLWA's mission. Planning for an adequate water supply to meet demands requires consideration of the reliability of SWP supplies, because history and statistical analysis indicate that the full contractual Table A Amount will not be available for delivery to the SWP Contractors in all years (IRWMP pg. 2-51). Therefore, SWP Contractors like CLWA are compelled to initiate local projects given that maximum Table A Amounts are not projected for delivery in the future.

2. Local water agencies like CLWA and the four purveyors understand that local water supplies will provide them with more control and will also expand their water portfolios and encourage efficient water allocation and use).

3. The retail purveyors and CLWA have undertaken the production of a Valley-wide Water Use Efficiency Strategic Plan for their service areas in the Valley, which will provide recommendations for a variety of water conservation measures that can be incorporated into future versions of the IRWMP through time (IRWMP pg. 3-4).

The USCR IRWMP objective ***Increase Water Supply*** will be implemented by understanding regional water demands and obtaining the necessary water supply sources. This is important to the USCR IRWMP for a few key reasons:

1. The CLWA service area portion of the Region's anticipated demand in a normal year is projected to be about 130,000 AF in 2030 (with conservation), but this could increase in a multi-year dry situation to an estimated 138,000 AF in 2030 (IRWMP pg. 3-5). Concurrently in a multi-year drought scenario, supplies will decline. For this reason the water agencies in the CLWA service area have planned for other sources to increase water supply and water supply reliability, including programs to restore groundwater production, to utilize recycled water, and to conserve water. Further, storm water capture and subsequent groundwater recharge provides for increased use of local supplies rather than imported water. These projects assist in maintaining the long-term sustainability of the groundwater supply.

2. Implementing and expanding the recycled water system within the Region provides a reliable source of water year round that can help offset reliance on imported water and local groundwater. Use and delivery of up to 17,400 AFY of reclaimed water was considered in CLWA's Recycled Water Master Plan Final Program Environmental Impact Report (IRWMP pg. 3-6). By utilizing the effluent from the Region's two wastewater treatment plants, the Saugus Water Reclamation Plant and the Valencia Water Reclamation Plant, CLWA and the purveyors can more efficiently allocate its potable water and increase the reliability of the local water supplies in the Santa Clarita Valley (IRWMP pg. 2-53).

3. CLWA and the purveyors currently meet the balance of their demands with local groundwater and a small amount of recycled water. However, CLWA has evaluated the long-term water needs (water demand) within its service area based on applicable county and city land use plans and has compared these needs against existing and potential water supplies. Results indicate that CLWA's water requirements should utilize increased proportions of supply from conjunctive use, water transfers and water banking as means to improve the reliability of SWP supplies, and that the Region's long-term water supply strategy should also include water conservation, storm water capture, groundwater recharge and recycled water (IRWMP pg. 2-60, 2-90, 3-4, 3-6, 4-13, 4-36, 5-10).

4. Since preparation of the 2008 IRWMP, SBx7-7 has been enacted, mandating that urban water suppliers reduce statewide water use (in gallons per capita per day) by 20 percent by 2020. Methods of complying with SBx7-7 include enhanced water conservation, water use efficiency, and recycled water. In addition, storm water capture and groundwater recharge projects provide for increased

use of local supplies rather than imported water. These projects assist in maintaining the long-term sustainability of the groundwater supply. CLWA and the purveyors are together preparing a 2010 Urban Water Management Plan which will provide the calculations necessary to obtain a regional understanding of the water demands within the Valley in order to set SBx7-7 baseline and targets suited to the Region.

Additionally, to help gain a better understanding the Region's dependence on the Delta water supplies from a hydrologic perspective, the Region will be implementing a focused region-specific Climate Change Technical Study that will be prepared during the IRWMP Update. The Climate Change Technical Study will identify vulnerability of the Region to climate change, evaluate potential climate change impacts, and identify and evaluate potential adaption strategies to better understand this altered hydrologic reliability.

USCR Water Management Strategies and Projects to Reduce Dependence on Imported Water

Nearly 40 separate projects were submitted for consideration as Candidate Projects during the "call for projects" (IRWMP pg. 5-1). Full implementation of the IRWMP will provide for the following specific benefits:

Demand Management Projects
Candidate Projects include preparation of a Valley-wide conservation strategic plan and technical support to improve water use efficiency in large landscape areas. More efficient water use will result in less demand on imported water supplies, less energy usage for treatment and delivery of water, and reduced demand for new or expanded water supply infrastructure. In addition, improved outdoor irrigation reduces the flows of poor quality urban run-off. (IRWMP pg. 5-9).

Water Supply Projects
The majority of Candidate Projects submitted by Stakeholders relate to water supply, particularly storm water capture, groundwater recharge, and development of recycled water supplies. Storm water capture and subsequent groundwater recharge provides for increased use of local supplies rather than imported water. These projects assist in maintaining the long-term sustainability of the groundwater supply. Depending on project specifics, these projects can also serve to decrease peak flood flows and provide opportunities for habitat improvement and restoration. Recycled water supplies, likewise, decrease demand for imported water. Recycled water can offset potable water demand, recharge groundwater, and be used to create and restore wetland areas. (IRWMP pg. 5-9).

Reducing Dependence into the Future

For the following reasons the USCR IRWMP *will continue to help reduce dependence on the Delta for water supply:*

- Adopted objectives of the USCR IRWMP are to ***Reduce Water Demand*** and ***Increase Water Supply***
- Adequate planning for, and the procurement of, a reliable water supply is a fundamental function of CLWA, the Region's SWP wholesaler and active RWMG member; and
- The RWMG is committed to, and the IRWMP governance structure supports, implementing and updating the IRWMP into the future.

Extracted from the IRWMP is the list of Candidate and Pending Projects (Att15_IG1_Delta_2of2); *projects that when implemented would continue to help reduce the Region's dependence on the Delta, through either a reduction in demand or an enhancement in supply* have been highlighted.